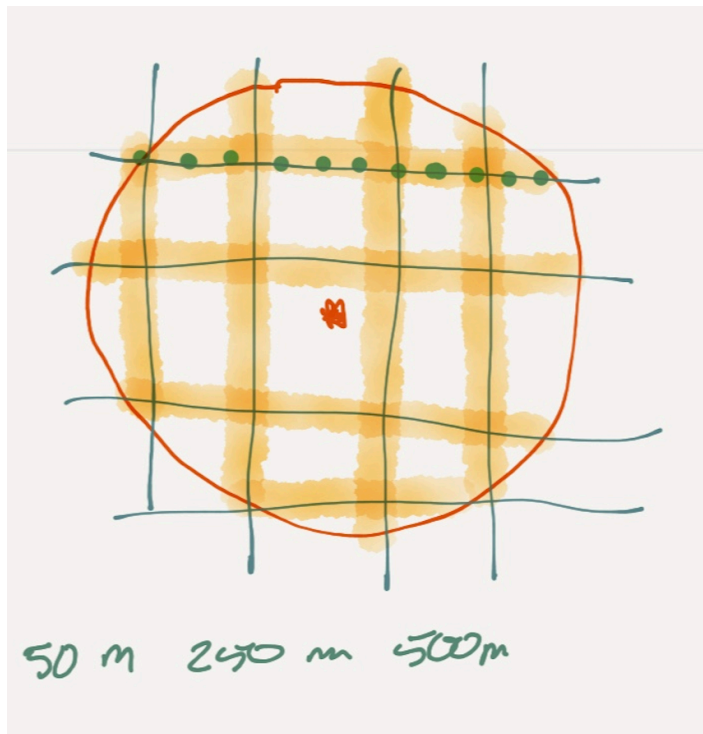# GreenIndex in Searchable Circle Area

Bing Zhang (bing@illinois.edu)

GreenIndex in Circle Area
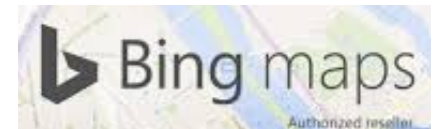
GeoNames

- geographical database:
  - 10 million geographical names.
  - serving up to over 150 million web service requests per day.
  - lat/long coordinates are in WGS84.
  - Users manually edit, correct and add new names.

- GeoNames Users:
  - Apple SnowLeopard, Ubuntu
  - Bing Maps, Microsoft Popfly, Multimap
  - Adidas and Nike
  - ESRI, DigitalGlobe and Spot Image
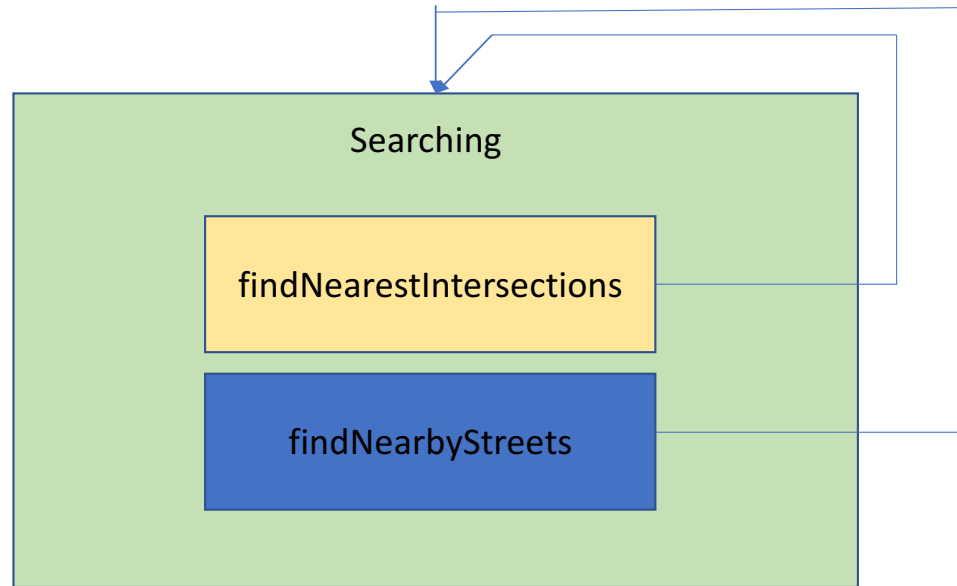 - New York Times, BBC, Norwegian Broadcas
  - More...

Free Rest API

- findNearestIntersection
  - 2000 credit per hour limits.
  - At most 1000 meters search radius.
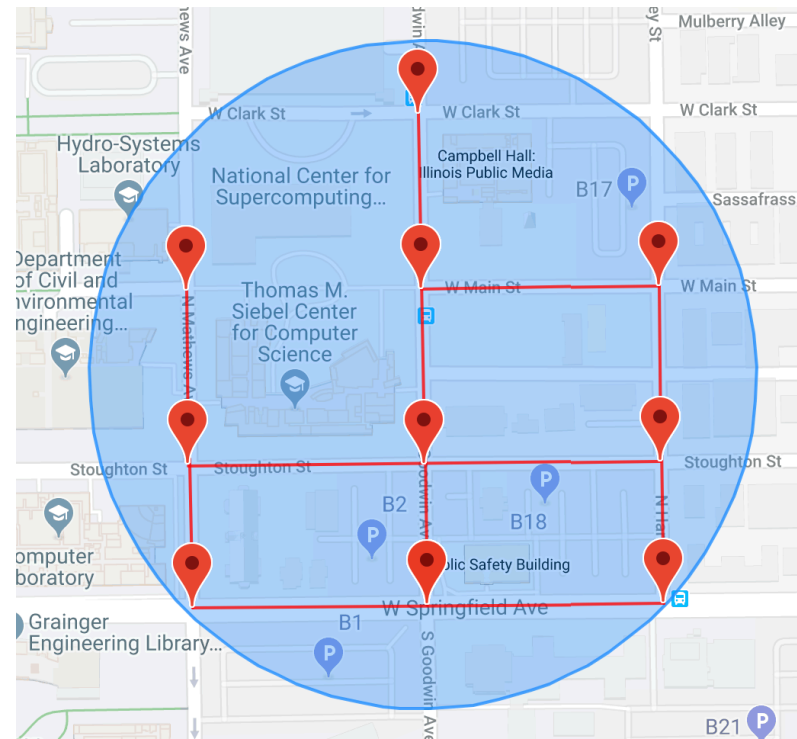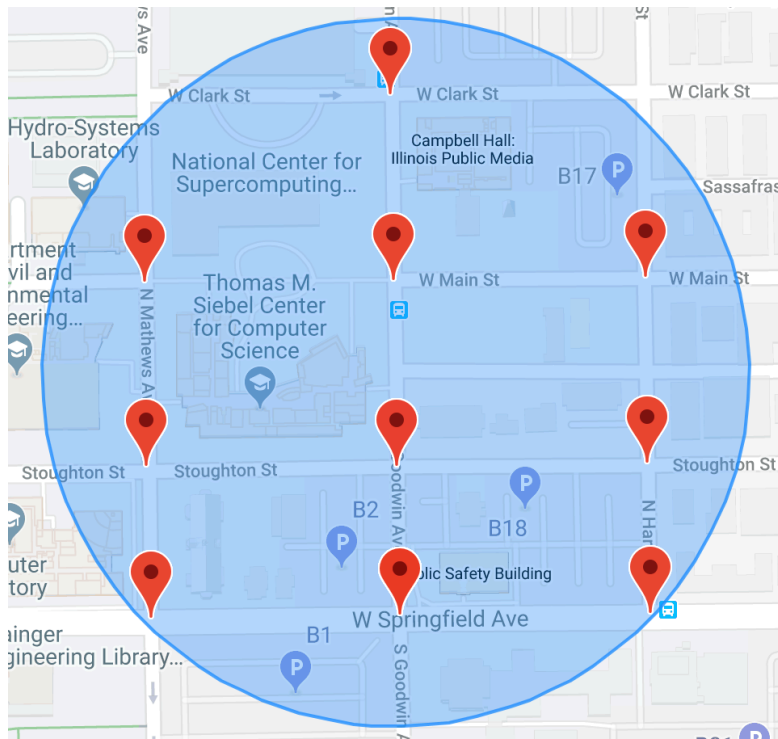 - At most 10 intersection pairs. C(4,2)=6
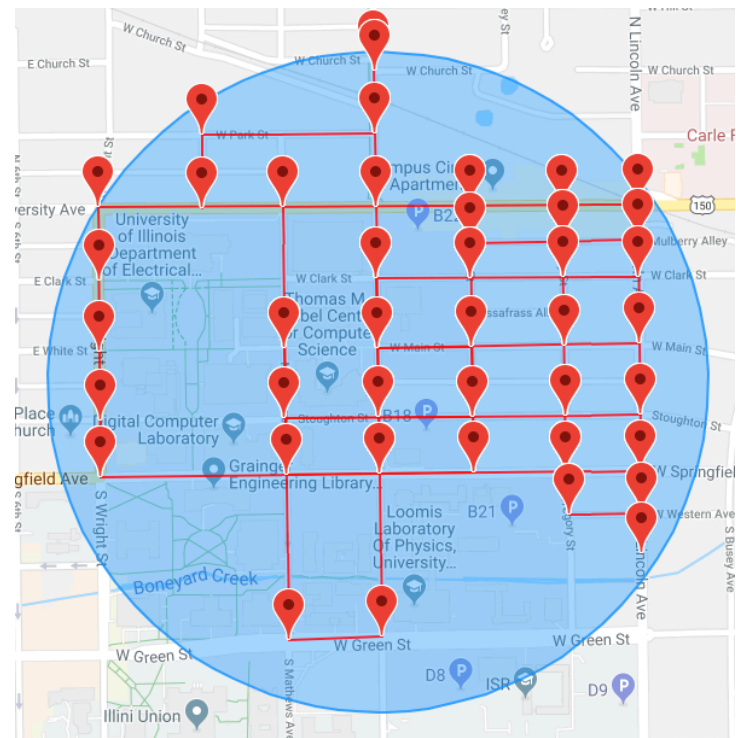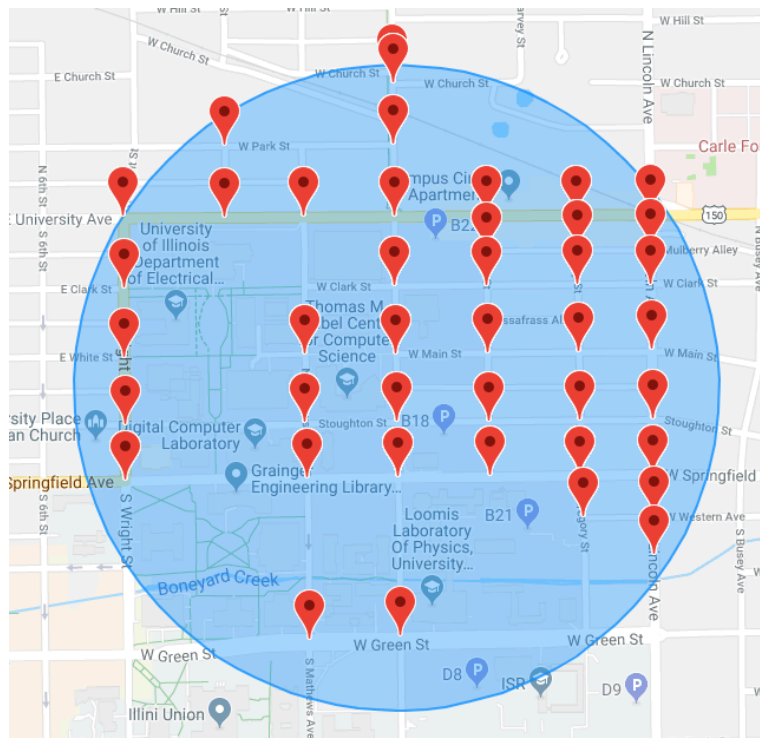
Extension Search

- Graph search with paths cuts.

Intersections, Routes in 200 meters

Intersections, Routes in 500 meters

Intersections, Routes in 900 meters